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10/620,911	07/15/2003	Donald McCoy	D-1171 R	8962
28995 7590 92/05/2009 RALPH E. JOCKE walker & jocke LPA 231 SOUTH BROADWAY			EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Application No. Applicant(s) 10/620.911 MCCOY ET AL. Office Action Summary Examiner Art Unit HAI TRAN 3694 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 08 December 2008. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-34 is/are pending in the application. 4a) Of the above claim(s) _____ is/are withdrawn from consideration. 5) Claim(s) _____ is/are allowed. 6) Claim(s) 1-34 is/are rejected. 7) Claim(s) _____ is/are objected to. 8) Claim(s) _____ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s)

1) Notice of References Cited (PTO-892)

Notice of Draftsperson's Patent Drawing Review (PTO-948)

Information Disclosure Statement(s) (FTO/S5/08)
 Paper No(s)/Mail Date _______.

Interview Summary (PTO-413)
 Paper No(s)/Mail Date.

6) Other:

5 Notice of Informal Patent Application

Art Unit: 3694

DETAILED ACTION

1. The Examiner has reviewed Applicant's Amendment/Remarks filed on December

8, 2008 and decided to issue Applicant this Non-Final Office Action.

2. Claims 1-34 remain pending in this application and have been examined.

Priority

 This application claims the benefit of U.S. Provisional Patent Application No. 60/396,607, filed 07/16/2002.

Response to Arguments

 Applicant's arguments filed on 12/8/2008 have been fully considered but they are not persuasive.

Argument:

6. Applicant argues that the previous Office Action, mailed on 10/8/2008, failed to meet the requirements of a prima facie case of obviousness in accordance with the KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 82 USPQ 2d 1385, 1391 (2007). The Applicant argues that the generic statements made in the Office Action regarding obviousness such as "to offer an improved and more secure computer system" do not meet the requirements of Graham (see Remarks, pages 3-4).

Response:

The obviousness doctrine of 35 USC 103(a) essentially states that combinations of prior art and what would have been obvious to the ordinary practitioner of the art to

Art Unit: 3694

solve a problem can be combined to determine that an invention lacks patentable novelty. The U.S. Supreme Court reinforced this concept as cited in a precedential decision by the Board of Patent Appeals in the case of In re. Catan, July 3, 2007:

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains," KSR Int'l Co. v. Teleflex Inc., 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007).

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). See also KSR, 127 S.Ct. at 1734, 82 USPQ2d at 1391 ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.") The Court in Graham further noted that evidence of secondary considerations, such as commercial success, long felt but unsolved needs, failure of others, etc., "might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." 383 U.S. at 18, 148 USPQ at 467.

In KSR, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," id. at 1739, 82 USPQ2d at 1395, and discussed circumstances in which a patent might be determined to be obvious without an explicit application of the teaching, suggestion, motivation test.

In particular, the Supreme Court emphasized that "the principles laid down in *Graham* reaffirmed the 'functional approach' of *Hotchkiss*, 11 How. 248." *KSR*, 127 S.Ct. at 1739, 82 USPQ2d at 1395 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12, 148 USPQ 459, 464 (1966) (emphasis added)), and reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* The Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, \$103 likely bars its patentability. For the same

Art Unit: 3694

reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740, 82 USPQ2d at 1396. The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." Id. 'IBPAI. In re. Catan. pp. 13-141.

The Supreme Court made clear that "[f]ollowing these principles may be more difficult in other cases than it is here because the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement." *Id.* The Court explained, "[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *Id.* at 1740-41, 82 USPQ2d at 1396.

The Court noted that "[t]o facilitate review, this analysis should be made explicit. Id. (citing In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness"). However, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." Id. at 1741, 82 USPQ2d at 1396.

9. In the instant case, the primary reference (Harding) discloses a system and method to automatically replace the primary BIOS if it fails the validation test with a backup BIOS to automatically boot the system without any intervention by an operator, but is silent on BIOS boot password. The secondary reference (Watson) teaches a feature of securing access to a computer system with a password during the boot operation to determine whether the BIOS files are corrupted. Therefore, it would have

Art Unit: 3694

been obvious to one of ordinary skill in the art at the time of the invention to modify Harding's invention to include the feature of BIOS boot password as taught by Watson to offer an improved and more secure computer system as a password would assure that only the correct BIOS is used.

- 10. The Examiner is satisfied that a combination of the Harding and Watson references discloses all the limitations as claimed by the Applicant, and that with the additional explanation of "as a password would assure that only the correct BIOS is used" provides additional reason to articulate why the combinations are obvious to one of ordinary skill in the art at the time of the invention.
- 11. In conclusion, for the reason set forth above, the Examiner decides to maintain the rejection based on Harding and Watson references described in the previous Office Action. The previous Office Action is also copied below for Applicant's information.

Response to Arguments (old)

- The Examiner has reviewed Applicant's Arguments/Remarks and Affidavits filed on September 29, 2008.
- With respect to the premature argument, the Examiner agrees. Hence, the previous Final Office Action, dated July 31, 2008, is withdrawn.
- With respect to the 37 C.F.R § 1.132 Affidavits, the argument is not persuasive.
 Hence, the 35 U.S.C. § 103 rejection remains stayed.
- Applicant argues that the Harding and Watson references, alone or in combination, do not disclose to have a BIOS specify that one bootable drive to require

Art Unit: 3694

an input of a password before booting, while a second bootable drive does not require an input of a BIOS password before booting (see Remarks, pages 3-4, last paragraph).

Page 6

- The Examiner disagrees. Harding discloses a system and method to automatically replace the primary BIOS if it fails the validation test with a backup BIOS to automatically boot the system without any intervention by an operator (see Harding, col. 1, lines 12-48). Harding also teaches switching between the primary BIOS and backup BIOS (see Harding, col. 2, lines 26-33. Examiner notes this is the same as "specify a default storage device drive to boot and requires the input of a BIOS password, and which storage device drive to boot without requiring the input of a BIOS password" of Applicant's invention - see Remarks, pages 2-3, paragraph 6). Harding is silent on BIOS boot password. However, Watson teaches a feature of securing access to a computer system with a password during the boot operation to determine whether the BIOS files are corrupted (see Watson, col. 4, lines 18-22 and Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Harding's invention, related to automatic replacement of corrupted BIOS, to include the secure access feature as taught by Watson to offer an improved and more secure computer system.
- 15. Harding in view of Watson is silent on ATM. However, it is old and well known in the art of banking and financial transaction. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Harding and Watson to the ATM system to provide an improved and more secure ATM system to customers.

Art Unit: 3694

16. In conclusion, the Examiner is satisfied that a combination of the Harding and Watson references discloses all the limitations as claimed. Hence, the 35 U.S.C. § 103 rejections remain stayed.

Claim Rejections - 35 USC § 103

- 17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 18. Claims 1-34 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Harding et al. (U.S. Patent No. 6,651,188) ("Harding") in view of Watson (U.S. 5,475,839) ("Watson").

Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

- 19. Regarding claim 1. Harding discloses a method comprising:
- a) detecting with a computer of an automated banking machine for the presence of a bootable media in at least one alternative storage device drive of the automated banking machine, wherein a BIOS of the computer specifies which of a plurality of storage device drives corresponds to a default storage device drive which does not

Art Unit: 3694

require an input of a first BIOS password, and which of the plurality of storage device drives corresponds to the at least one alternative storage device drive which does require the input of the BIOS boot password (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22);

b) booting the computer responsive to a boot record on either the bootable media of the at least one alternative storage device drive or a bootable media of the default storage device drive (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22);

wherein when the bootable media of the at least one alternative storage device drive is detected in step (a), the booting of the computer includes requiring at least once for a user to input a password, wherein when the inputted password corresponds to the BIOS boot password stored in the BIOS of the computer, the computer is booted responsive to the boot record on the bootable media of the at least one alternative storage device drive (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22); and

wherein when the bootable media of the at least one alternative storage device drive is not detected in step (a), the computer is booted responsive to a boot record on the bootable media of the default storage device drive without requiring a user to input the BIOS boot password (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22).

 Harding discloses a system and method which allows a backup BIOS image to automatically be enabled whenever the primary BIOS image is faulty without any

Art Unit: 3694

intervention by an operator (see col. 1, lines 38-40), but is silent on BIOS boot password. Watson teach a method and structure for securing access to a computer system including testing with a unique access diskette in conjunction with user ID, password for the security of the system (see Watson, col. 18-22). It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the BIOS boot password feature of Watson with the teachings of Harding to provide a more secure computer system. Harding in view of Watson is silent on the ATM. However, ATM is old and well known in the art of financial transaction. It would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the security feature to the ATM system to provide a more and better system to consumers.

- 21. **Regarding claim 2,** Harding teaches wherein when the bootable media of the at least one alternative storage device drive is detected in step (a) and the BIOS boot password is not inputted within a predetermined amount of time, in step (b) the computer is booted responsive to the boot record of the bootable media of the default storage device drive (see figure 2c/element 240).
- 22. Regarding claim 3, Harding teaches wherein when the bootable media of the at least one alternative storage device drive is detected in step (a) and at least once the inputted password does not correspond to the BIOS boot password stored in the BIOS of the computer, in step (b) the computer is booted responsive to the boot record of the bootable media of the default storage device drive (see Watson, col. 4, lines 18-22). One of ordinary skill in the art would have combined the teachings of Harding and Watson to offer a more and better secure ATM system to consumer.

Art Unit: 3694

23. Regarding claim 4, Harding teaches further comprising: c) executing at least one terminal control software component in the computer which is stored on the bootable media of the default storage device drive; and d) dispensing cash from a cash dispenser responsive to at least one terminal control software component (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22). Harding in view of Watson is silent on ATM for dispensing cash. One of ordinary skill in the art would have applied the teachings of Harding and Watson to an ATM system to provide a more secure system to consumers.

- 24. Regarding claim 5, Harding teaches further comprising:
- c) receiving a first input that is representative of a request to run a BIOS setup program (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22);
 and
- d) requiring a user to provide a second input that corresponds to the BIOS boot password stored in the BIOS prior to running the BIOS setup program (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22). One of ordinary skill in the art would have combined the teachings of Harding and Watson to offer a more and better secure ATM system to consumer.
- 25. Regarding claim 6, Harding teaches that further comprising: c) receiving a first input that is representative of a request to run a BIOS setup program; and d) requiring a user to provide a second input that corresponds to a BIOS program password stored in the BIOS prior to running the BIOS setup program (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22). One of ordinary skill in the art would have

Art Unit: 3694

combined the teachings of Harding and Watson to offer a more and better secure ATM system to consumer.

- 26. **Regarding claim 7,** Harding is silent on BIOS boot password. However, Watson teaches that both the BIOS boot password and the BIOS program password are stored in the BIOS of the computer (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22). One of ordinary skill in the art would have combined the teachings of Harding and Watson to offer a more and better secure ATM system to consumer.
- Regarding claim 8, Harding teaches wherein in step (b) the default storage device drive and associated bootable media correspond to a hard drive (see Harding, col. 3, lines 13-5 of col. 4, figure 2A).
- 28. Regarding claims 9-13, Harding teaches wherein in step (b) the bootable media of the at least one alternative storage device drive corresponds to a portable media; wherein the portable media is a floppy disk, CD, DVD, and a portable hard drive (see Harding, col. 1. lines 12-25).
- 29. Regarding claims 14-15, these claims are the computer readable media claims for implementing the method claims 1-13. Hence, they have the same steps and limitations. Therefore, they are rejected under the rationale provided in claims 1-13.
- 30. Regarding claim 16, Harding disclose a method comprising:
- a) detecting with a computer of an automated banking machine for the presence of a first bootable media in at least one first storage device drive of the automated banking machine (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22):

Art Unit: 3694

b) booting the computer responsive to a boot record on either the first bootable media of the at least one first storage device drive or a second bootable media of a second storage device drive of the automated banking machine (see Harding, col. 3, lines 13-5 of col. 4, figure 2A: Watson, col. 4, lines 18-22):

wherein when the first bootable media is detected in step (a), the booting of the computer includes: determining responsive to a BIOS of the automated banking machine that the at least one first storage device drive requires a BIOS boot password (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22):

requiring at least once for a user to input the BIOS boot password, wherein when an inputted password corresponds to a BIOS boot password stored in the BIOS of the computer, the computer is booted responsive to a first boot record on the first bootable media (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22); and

wherein when the first bootable media is not detected in step (a) the booting of the computer includes (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22):

determining responsive to a BIOS of the automated banking machine that the second storage device drive does not require the BIOS boot password, wherein the computer is booted responsive to the boot record on the second bootable media of the second storage device drive without requiring a user to

Art Unit: 3694

input the BIOS boot password (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22).

- 31. Harding discloses a system and method which allows a backup BIOS image to automatically be enabled whenever the primary BIOS image is faulty without any intervention by an operator (see col. 1, lines 38-40), but is silent on BIOS boot password. Watson teach a method and structure for securing access to a computer system including testing with a unique access diskette in conjunction with user ID, password for the security of the system (see Watson, col. 18-22). It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the BIOS boot password feature of Watson with the teachings of Harding to provide a more secure computer system. Harding in view of Watson is silent on the ATM. However, ATM is old and well known in the art of financial transaction. It would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the security feature to the ATM system to provide a more and better system to consumers.
- 32. Regarding claims 17-18, these claims are the computer readable media claims for implementing the method claim 16. Hence, they have the same steps and limitations. Therefore, they are rejected under the rationale provided in claim 16.
- 33. Regarding claim 19, Harding in view of Watson discloses a method comprising:
 a) detecting with a computer of an automated banking machine that a bootable media is present in at least one alternative storage device drive of the automated banking machine, wherein a BIOS of the computer specifies that a BIOS password is required for the bootable media of the at least one alternative storage device drive; b) prompting

Art Unit: 3694

at least once for a user to input the BIOS boot password; c) determining that an inputted password corresponds to the BIOS boot password stored in the BIOS of the computer d) booting software of the computer responsive to a first boot record on the bootable media of the at least one alternative storage device drive; e) restarting the computer; f) detecting with the computer that a bootable media is not present in the at least one alternative storage device drive; and g) booting the computer responsive to a boot record on a bootable media of a default storage device drive without requiring a user to input the BIOS boot password (see Harding, col. 3, lines 13-5 of col. 4, figure 2A; Watson, col. 4, lines 18-22).

Page 14

34. Harding discloses a system and method which allows a backup BIOS image to automatically be enabled whenever the primary BIOS image is faulty without any intervention by an operator (see col. 1, lines 38-40), but is silent on BIOS boot password. Watson teach a method and structure for securing access to a computer system including testing with a unique access diskette in conjunction with user ID, password for the security of the system (see Watson, col. 18-22). It would have been obvious to one of ordinary skill in the art at the time of the invention to have included the BIOS boot password feature of Watson with the teachings of Harding to provide a more secure computer system. Harding in view of Watson is silent on the ATM. However, ATM is old and well known in the art of financial transaction. It would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the security feature to the ATM system to provide a more and better system to consumers.

Art Unit: 3694

35. Regarding claims 20-21, these claims are the computer readable media claims for implementing the method claim 19. Hence, they have the same steps and limitations. Therefore, they are rejected under the rationale provided in claim 19.

36. Regarding claims 22-34, these are the machine claims that the instant application is used for. In this case, it refers to an automatic banking machine (ABM) or ATM. Harding in view of Watson is silent on the ATM. However, ATM is old and well known in the art of financial transaction. It would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the security feature to the ATM system to provide a more and better system to consumers. Therefore, claims 22-34 are rejected under the same rationale provided in claims 1-21.

Conclusion

- 37. Claims 1-34 are rejected.
- 38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAI TRAN whose telephone number is (571)272-7364.
 The examiner can normally be reached on M-F, 9-4 PM.
- 39. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P. Trammell can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- Information regarding the status of an application may be obtained from the
 Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 3694

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/H. T./ Examiner, Art Unit 3694

/Mary Cheung/ Primary Examiner, Art Unit 3694